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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

LAZORCIK, JASON L

ART UNIT

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1731

MAIL DATE

DELIVERY MODE

07/24/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/673,166	Applicant(s) ROMBOUTS ET AL.	
	Examiner Jason L. Lazorcik	Art Unit 1731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1 through 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Northup (US 4,276,073). Northup recites a method of forming a parison from a molten gob which is subsequently transferred into a blow mold, the parison being <75% of the height of said mold (Column 1, Lines 30-34). Once in the blow mold, the base of the parison is engaged by a vacuum plunger which protrudes into the mold and said parison is elongated by moving the plunger into a retracted position. It is understood that the disclosed plunger inherently varies its speed through the stretching process as set forth in claim 7 and that said plunger is capable of "adopting strokes of different lengths" (Figs 2-5). Northup further teaches that a positive pressure of air or "a cooling fluid" is forced into the plunger after drawing the parison (column 4, Lines 29-30). The

Art Unit: 1731

elongated parison is subsequently inflated by either positive pressure or vacuum (Column 3, Lines 38-53) into the final hollow glass article. Finally, the reference discloses that “a plurality of blow molds are associated with each blank” (Column 1, Lines 61-65) which is understood to read on the limitation in Claim 19 wherein n glass articles are simultaneously formed in the process. Additional basis for the limitations set forth in claim 1 can be found in the disclosure of the preferred embodiment (Column 2, Line 36 – Column 4, Line 54) as set forth in the immediate reference. However, the Northup reference fails to expressly set forth the limitation wherein the suction in the suction cup is established prior to the bottom of the blank coming into contact with the suction cup.

Northup does disclose that “the plunger extends up to a height nearly equal to the entry position of the parison” (Column 2, Lines 60-62) which is understood to mean that the parison is not in physical contact with the plunger upon its initial insertion into the blow mold. Further, the reference indicates that the vacuum engages the bottom of the parison “at the desired point in the cycle” (Column 3, Lines 1-6). Since the parison is not initially in contact with the plunger and vacuum is established at the desired point to initiate contact, it would have been obvious to one of ordinary skill in the art at the time of the invention to establish suction in the plunger prior to the bottom of the blank coming into contact with the suction cup as claimed. This would have been an obvious choice for one of ordinary skill in the art seeking to minimize processing time of a parison (e.g. avoid waiting time for the parison to flow into contact with the plunger by gravity).

Northup teaches that contact between the parison and the surfaces of the molding equipment cause the heated glass to rapidly cool which may lead to a "structural failure of the material or a stiffness that makes it unworkable"(Column1, Lines44-50). A particular parameter must first be recognized as a result-effective variable, i.e., a variable which achieves a recognized result, before the determination of the optimum or workable ranges of said variable might be characterized as routine experimentation (See *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980) and *In re Antonie*, 559 F.2d 618, 195 USPQ 6 (CCPA 1977)). In the instant case, there is a direct relationship for contact time between the mold and the parison, the equipment temperature, and the rate of cooling of the parison. Therefore processing time and equipment temperature are deemed result-effective variables of glass article fabrication process. Subsequently it would be obvious to one of ordinary skill in the art to optimize the process variables which collectively contribute to the processing time and equipment temperature both as a matter of optimizing throughput for economic reasons as well as the ultimate product quality issues as indicated above. Since optimization of process timing and equipment temperature would be undertaken through routine experimentation and in the absence of any unexpected results, the claims 3, 4, 5, 6, 8, 12, 13 are deemed obvious over the prior art.

Regarding claims 2 and 9, it would be obvious to one of ordinary skill in the art to optimize both the level of vacuum generated in the plunger and the separation distance between the plunger and the bottom of the parison. It would be obvious to optimize the vacuum level between a minimum level which provides enough suction to "grab" the

Art Unit: 1731

parison and a maximum level which could cause deformation of the bottom of the parison on the vacuum plunger. Further, it would be obvious to optimize the separation distance for a given vacuum level to any distance which permits the vacuum in the plunger to communicate with the bottom of the parison. These variables would decrease or eliminate the time needed for the parison to gravity flow into contact with the plunger.

With respect to claim 10, it would be obvious to one of ordinary skill in the art to maintain the molten gob of glass at any temperature in the working temperature range of a given glass composition.

With respect to Claims 14 and 15, figure 1 clearly shows that bottom of the parison has a concave geometry and it would be obvious to one of ordinary skill to adjust the depth of this indent in order to optimize the vacuum interface between the parison and the plunger.

Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Northup (US 4,276,073) as applied to claim 1 above, and further in view of Northup (4,507,136). '073 fails to teach that the stretching stroke for the suction cup decreases with increasing distance from the finishing molds from the pivot axis of the rocker mechanism.

Reference '136 teaches a parison drawing machine which elongates a molded parison blank prior to finishing in a blow mold. The reference indicates that when drawing a parison, "the thicker, hotter part will stretch more than a thinner part because it is less viscous than the thinner part. As it becomes thinner, under the action of the drawing force, it loses temperature and gains viscosity" (Column 2, Line 66-Column 3, Line 5).

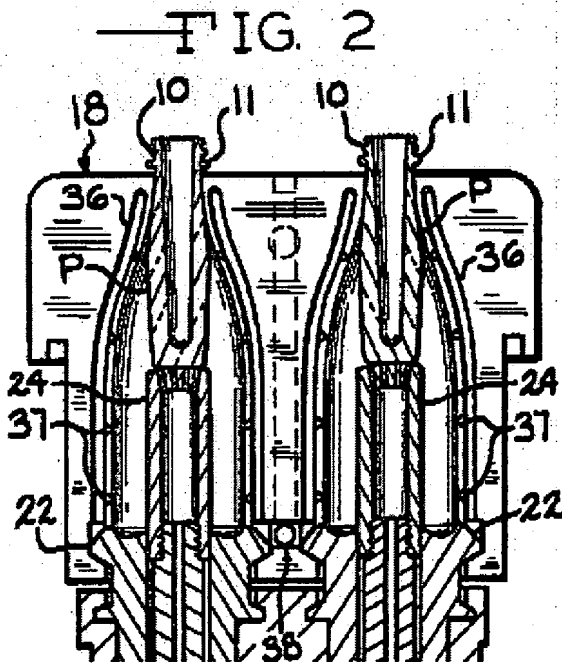
Art Unit: 1731

In light of the '136 disclosure, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the Northup '073 invention to decrease the draw rate as the parison elongation process proceeds. This would have been an obvious modification in order to avoid damaging the drawn parison as it becomes thinner, cooler and thus more viscous through the drawing process.

Response to Arguments

Applicant's arguments filed April 30, 2006 have been fully considered but they are not persuasive.

Applicant argues that Northup I (US 4,276,073) does not provide adequate disclosure to support a prima facie case of obviousness under 35 U.S.C §103(a). Applicant asserts that Northup fails to disclose or suggest a step of establishing suction in the suction cup prior to the bottom of the blank coming into contact with the suction cup. Applicant cites the instant reference passage Column 3, lines 1-6 and Figure 2 (see below partial excerpt) as evidence that Northup I "shows that the suction cup is in contact with the bottom of the parison when the vacuum is initiated". The Examiner is unpersuaded by Applicants arguments.



It is the Examiners position that Applicant has misinterpreted the cited passage (Column 3, lines 1-6) which reads;

"A vacuum passage 28 communicates with the interior of the central plunger plate 24 so that at the desired point in the cycle, as shown in FIG. 2, have a vacuum engagement with the bottom of the parison 10 as vacuum is established in the passage".

First, it is evident from the passage that figure 2 shows "the desired point in the cycle" wherein the central plunger plate (24) has achieved vacuum engagement with the bottom of the parison. The reference further clarifies this "desired point in the cycle" by noting that it occurs at a point in time "as vacuum is established in the passage".

It is the Examiners position that the phrase "as vacuum is established" is inclusive both of processes cycles wherein vacuum is established prior to contact with the bottom of the parison as well as process cycles wherein vacuum is established coincident with or after contact with the bottom of the parison. At the very least the instant reference neither explicitly nor implicitly limits the disclosed process to only establish suction after the suction cup comes into contact with the bottom of the parison.

In view of the above points, it appears that Applicant has misconstrued the instant passage. Specifically, the Examiner has found no convincing basis to support Applicants conclusion that Figure 2 "shows that the suction cup is in contact with the bottom of the parison when the vacuum is initiated" and that "nothing in Northup I discloses or suggests any action occurring prior to this contact".

In addition to the foregoing points, Applicant asserts that one of ordinary skill in the art, in view of the Northup I teachings, would find neither cause nor motivation to operate the glass vessel fabrication cycle in the claimed manner. As clearly stated in the previous Office Action dated October 31, 2006 (Page 4, lines 5-16), "since the parison is not initially in contact with the plunger ... it would have been obvious to one of ordinary skill in the art at the time of the invention to establish suction in the plunger prior to the bottom of the blank coming into contact with the suction cup (in order) to minimize processing time of a parison (e.g. avoid waiting time for the parison to flow into contact with the plunger by gravity)." Applicant has failed to set forth any compelling

Art Unit: 1731

arguments to address this motivation or to provide any evidence showing compelling and non-obvious results arising from the claimed method.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason L. Lazorcik whose telephone number is (571) 272-2217. The examiner can normally be reached on Monday through Friday 8:30 am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on (571) 272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1731

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JLL


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